Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

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Listing of Claims:

1.   (Currently Amended) A method for credit recovery due to [[of]] lost frames in an in-line credit extender coupled between a remote device and a local device, where the in-line credit extender extends credit for the local device, comprising:

10   determining credit loss due to lost frames by comparing a frame count value with a primitive count value for a receive segment of the in-line credit extender, the primitive count value being maintained in a buffer to buffer credit recovery module of the in-line segment, the buffer to buffer credit recovery module interfacing with the receive segment of the in-line extender that receives frames and primitives from the remote device and a transmit segment of 15 the in-line extender that transmits frames and primitives to the remote device, wherein the primitive is sent periodically by the remote device after certain number of frames are transmitted by the remote device to the local device via the in-line extender;

      storing the credit loss in a buffer at the buffer-to-buffer credit recovery module in the in-line extender;

20   increasing a transmit frame count based on the credit loss, the transmit frame count is maintained for frames that are transmitted by the in-line extender to the local device and the transmit frame count is maintained by a counter in the buffer to buffer credit recovery module; and

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sending the primitive to the local device if the transmit frame count after adding the

credit loss matches a primitive count maintained for the transmit segment of the in-line extender

by the buffer-to-buffer recovery module.

~~comparing received frame count and a first programmed counter value when BB-~~

5   ~~SCs are received;~~

~~loading the difference between the programmed counter value and the received~~

~~frame count into a buffer and to a first counter that counts each frame that is transmitted; and~~

~~sending BB-SCs to the local device if there is a match between the first counter~~

~~value and a second programmed counter value.~~

10   2.   (Currently Amended) The method of Claim 1, wherein ~~the first and the second~~

~~programmed counter values are the same~~ a counter for the primitive count for the receive

segment of the in-line extender and a counter for the primitive count for the transmit segment of

the in-line credit extender are set to a same value.

3.   (Currently Amended) The method of Claim 1, wherein the in-line extender is used in a

15   Fibre Channel network ~~number of buffer credits lost are determined by the difference between~~

~~the first or second programmed counter value and the received frame count.~~

4.   (Currently Amended) A system for credit recovery [[of]] due to lost frames in an in-line

credit extender coupled between a remote device and a local device, the in-line credit extender

extending credit for the local device, comprising:

20   a first counter in a buffer to buffer credit recovery module of the in-line extender, for

counting ~~received~~ frames received by a receive segment of the in-line extender from the remote

device;

a first programmable counter <u>for the receive segment of the in-line credit extender</u> that is

programmed with a value;

a ~~compareartor~~ <u>comparator</u> for comparing the first counter <u>value</u> and the first

programmable counter value when <u>a primitive is received from the remote device, wherein the</u>

5   <u>primitive is sent periodically by the remote device after certain number of frames are transmitted</u>

<u>by the remote device to the local device via the in-line extender</u> ~~BB_SCs are received~~; [[and]]

<u>a buffer for storing the difference between the first counter value and the programmed</u>

<u>counter value, the difference indicating credit loss due to loss of frames;</u>

a second counter for counting ~~transmitted~~ frames <u>transmitted by a transmit segment of</u>

10   <u>the in-line credit extender; where the second counter value is increased by the difference</u>

<u>between the first counter value and the second counter value; and</u>

<u>a second programmable counter for a primitive count for the transmit segment of the in-</u>

<u>line credit extender, whose value is compared to the second counter value and if there is a match</u>

<u>between the second programmable value and the second counter value, then the transmit</u>

15   <u>segment of the in-line extender sends the primitive to the local device</u> .

5. (Currently Amended) The system of Claim 4, <u>wherein the first programmable counter and</u>

<u>the second programmable counter are set to a same value</u> ~~further comprising:~~

~~a second programmable counter whose value is compared to the second counter~~

~~and if there is a match between the two values, BB-SCs are sent to the local device~~.

20   6. (Currently Amended) The system of Claim 5, wherein <u>the in-line extender is used in a Fibre</u>

<u>Channel network</u> ~~the difference between the first counter value and first programmable counter~~

~~value is loaded into a buffer and sent to the second counter that counts transmitted frames.~~

7. (Currently Amended) A method for credit recovery ~~of lost R_RDYs~~ in an in-line credit extender <u>due to loss of a first primitive used for establishing credit, the in-line credit extender being operationally</u> coupled between a remote device and a local device <u>for extending credit for the local device</u> , comprising:

5   <u>receiving the first primitive, wherein the in-line extender receives the first primitive from the remote device;</u>

        counting <u>the first primitive using a first counter in a buffer to buffer credit module of the in-line credit extender;</u> ~~received R_RDYs, wherein a first counter counts the received R_RDYs~~;

        <u>sending the first primitive from the in-line credit extender to the local device, if the first</u>

10 <u>counter value is non-zero;</u>

        <u>receiving a second primitive from the remote device, the second primitive sent periodically by the remote device after sending one or more of the first primitive;</u>

        setting a flag when <u>the second primitive is received</u> ~~a BB_SCr is received~~; ~~and~~

        transmitting <u>the second primitive to the local device</u> ~~BB_SCr~~ when the first counter value

15 is zero and the flag is set<u>; and</u>

        <u>counting one or more of the first primitive that are received after receiving the first primitive using a second counter instead of the first counter.</u>

8. (Currently Amended) The method of Claim 7, further comprising:

~~counting R_RDYs after BB_SCrs are received, wherein a second counter counts the R_RDYs;~~

20 ~~and~~

        transmitting <u>one or more of the first primitive</u> ~~R_RDYs~~ when the second counter value is non-zero.

9. (Currently Amended) The method of Claim 7, wherein the first counter value is decreased ~~everytime~~ after the first primitive ~~an R_RDY~~ is transmitted.

10. (Currently Amended) The method of Claim 7, wherein the flag is cleared after the second primitive ~~a BB_SCr~~ is transmitted.

5   11. (Currently Amended) The method of Claim 8, wherein the second counter is decremented ~~everytime~~ after the first primitive ~~an R_RDY~~ is transmitted.

12. (Currently Amended) A system for credit recovery ~~of lost R_RDYs~~ in an in-line credit extender, due to loss of a first primitive used for establishing credit the in-line credit extender being operationally coupled between a remote device and a local device for extending credit for

10   the local device, comprising:

a first counter for counting the first primitive ~~received R_RDYs~~;

a second counter for counting one or more of the first primitive that are received after the in-line credit extender receives a second primitive, the second primitive is periodically sent by a remote device for credit recovery due to loss of the first primitive; ~~R_RDYs received~~

15   ~~after BB_SCrs are received~~; ~~and~~

a register that stores a flag, where the flag is set after the second primitive is received; and

a ~~R_RDY~~ first primitive control module that transmits the first primitive to the local device ~~R_RDYs~~ when the first counter value is non-zero or transmits the first primitive to

20   the local device if the second counter is non-zero, when the second counter is used for counting the first primitive.

13. (Currently Amended) The system of Claim 12, further comprising:

~~a register that sets a flag when a BB_SCr is received; and~~

a ~~BB-SCr~~ second primitive control module that transmits the second primitive ~~BB_SCrs~~ when the first ~~or second~~ counter value is zero and the register flag is set .

14.   (Currently Amended) The system of Claim 12, wherein the first primitive is R_RDY, a flow control primitive used in a Fibre Channel network to establish credit; and the second primitive is BB_SCr sent periodically by a Fibre Channel device for credit recovery due to loss of R_RDYs. ~~the first and second counter flip based upon when an R_RDY is received~~.

15. (New) The method of Claim 1, wherein the in-line credit extender is coupled to a   host bus adapter.

16. (New) The method of Claim 1, wherein the in-line credit extender is coupled to a switch.

17. (New) The method of Claim 3, wherein the primitive is a flow control Fibre Channel compliant primitive, BB-SC, used for recovering credit due to loss of frames.

18. (New) The system of Claim 4, wherein the in-line credit extender is coupled to a host bus adapter.

19. (New) The system of Claim 4, wherein the in-line credit extender is coupled to a switch.

20. (New) The system of Claim 6, wherein the primitive is a flow control Fibre Channel compliant primitive, BB_SC, used for recovering credit due to loss of frames.

21 (New) The method of Claim 7, wherein the first primitive is R_RDY, a flow control primitive used in a Fibre Channel network to establish credit; and the second primitive is BB_SCr sent periodically by a Fibre Channel device for credit recovery due to loss of R_RDYs.

22. (New) The system of Claim 12, wherein the in-line credit extender is coupled to a host bus adapter.

23. (New) The system of Claim 12, wherein the in-line credit extender is coupled to a switch.